

MAPLE TREE BUDBURST PROTOCOL

Purpose: To observe budburst on selected maple trees at a selected site in your own school community.

Site Selection: You want to select trees that are as close to the general vegetation as possible. Select a maple tree where most of the trees are growing without irrigation. Do not pick a watered tree to study.

Tree selection: Budburst data is most useful if taken from an overstory species. So select a native maple tree that is characteristic of the taller trees in the site. Trees should be easily accessible. Ideally individual buds should be visible with the naked eye. Otherwise, binoculars may be used to observe the individual buds. Select several trees to monitor and identify what species of maple tree you are going to study (this may be easier to identify the species in the fall before you intend to monitor the budburst).

Measuring Budburst: The timing of budburst on individual branches can vary by several days within one tree. High branches also can be difficult to see. For these reasons, using the steps below, you will record the date on which budburst has occurred on at least three different areas of the tree.

- Since budburst is highly variable from year to year, you will need to start monitoring well before the average date of budburst. *Check out the data from last year to get an estimate of the time of budburst for your region.*
- In the spring, two weeks or more before the average date of budburst, the entire class or at least all students who will be taking measurements should visit the site to determine which tree(s) to monitor.
- Make trips to your site twice a week. Look at the buds all over the tree.

*Do the buds appear to be swelling or have any of the buds burst open? Can you see signs of tiny leaves emerging from inside the bud? If so this is the beginning of the overall tree budburst and you should start visiting the site every day.

*When you have noticed three separate locations on each tree where budburst has occurred, enter this as the date of budburst on your data sheet. Three buds on one branch do not count, you are looking for three different parts of the tree where budburst has happened. You should have one date for each tree. Budburst observations can be made at any time during the day.

Submit your data to DEP Jeepers Peepers. Only the earliest date of the first tree to have budburst will be plotted on the JP budburst maps.

** This protocol is excerpted from the Globe budburst protocol, to maintain consistency between data sets, however, for this project we are only looking at maple trees. If you'd like more information go to www.Globe.gov to access their monitoring protocol for tree budburst.*